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(54) Title: **METHODS AND APPARATUS FOR CELL BASED MICROARRAY ASSAYS**

(57) Abstract: The present invention relates methods for screening of cellular responses comprising: (a) providing a solid porous support having first and second surfaces and at least one area with a plurality of through-going channels (b) providing cellular components on said first and/or second surface of said solid porous support, wherein said solid porous support retains said cellular compounds on its surface; (c) providing a supply chamber at said first and/or second surface and opposite to said cellular components (d) subjecting all or part of said cellular components to one or more effectors; wherein at least one effector is delivered from said supply chamber through the porous support; (e) incubating the said all or part of cellular components with said effectors under conditions allowing the induction of cellular responses in the said all or part of cellular components; (f) optionally providing detector molecules to the said all or part of cellular components for assaying cellular responses (g) assaying for cellular responses; and, (h) identifying and characterizing the cellular responses induced by said effector molecules. The present invention further relates to the use of said methods and apparatuses for carrying out said methods as well as to the use of a porous support for the preparation of a microarray kit for carrying out said methods.